

Title (en)

Method for producing an environment card and for determining a position in the environment by an automotive unit

Title (de)

Verfahren zur Erstellung einer Umgebungskarte und zur Bestimmung einer Eigenposition in der Umgebung durch eine selbstbewegliche Einheit

Title (fr)

Procédé d'établissement d'une carte de l'environnement et de détermination d'une position dans l'environnement au moyen d'un appareil automateur

Publication

EP 0635773 B1 19990929 (DE)

Application

EP 94110598 A 19940707

Priority

DE 4324531 A 19930721

Abstract (en)

[origin: DE4324531C1] The invention describes an orientation and mapping method for mobile units which move in an unknown environment. In order to correct the position of the mobile unit in the environmental map and the location of a landmark in the environmental map, for a particular position, a specific distance from the landmark is predicted on the basis of the movement history and a specific distance from the landmark is measured on the basis of the current position. This difference between the predicted and measured distance from the landmark is denoted as a system error. The system error is then, with knowledge of the uncertainty involved in positional determination of the mobile unit and in location determination of the landmark, divided up in their ratio and used for correcting the position of the mobile unit and the location of the landmark in the environmental map. The said uncertainty can thus be reduced during the movement of the mobile unit. Ranges of application of the method lie in the field of household robots, industrial robots or, for example, autonomous transport vehicles. <IMAGE>

IPC 1-7

G05D 1/02; **G01C 21/00**

IPC 8 full level

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CPC (source: EP US)

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Cited by

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